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ABSTRACT

Cognitive structures concerned with processing information about gender have been called gender schemas. Research about gender schematicity often has involved self-reporting measures of traits. These measures consisted of empirically chosen adjectives that were desirable for both sexes, but judged more typical of females or males. The current study measured gender schematicity using both traits and careers and involved 20 female college students enrolled in an introductory psychology course. The gender schema was measured using a response time latency measure. The time between presentation and response was considered to reflect the availability of the gender schema. Individuals were to respond "yes" or "no" to a series of stimulus words. These words consisted of traits and careers, presented in random order. The subjects' task was to determine whether or not each trait was self descriptive, and whether or not each of the careers was appropriate for her to consider. Based on the response times, the findings indicated that female traits were encoded most successfully, followed by masculine traits, which received more elaborate encoding than neutral traits. Results also showed that, for careers, masculine traits were the most successfully encoded, and feminine traits received the least elaborate encoding. Thus, while the female subjects may be considered to be feminine schematic for traits, it is equally true that they are not feminine schematic for careers. Two charts regarding "Attributes" and "Careers" are attached. Contains 23 references. (DB)

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A Bi-dimensional Approach to Measuring the Gender Schema

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RUNNING HEAD: Measuring the Gender Schema

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Abstract

Gender Schematicity has most often been measured using traits. This provides information about how traits are processed: whether the gender schema is used in processing traits. This measurement may not be appropriate for providing a global measure of gender schematicity. The current study measured gender schematicity using both traits and careers. A response time latency task was designed to measure the gender schema of 20 female college students enrolled in introductory psychology courses.

Findings indicate that feminine traits are encoded most successfully, followed by masculine traits, which have received more elaborate encoding than neutral traits. Results show that, for careers, masculine items are the most successfully encoded, and feminine items have received the least elaborate encoding. Thus, while these women are clearly feminine schematic for traits, it is equally true that they are not feminine schematic for careers.

A Bi-dimensional Approach to Measuring the Gender Schema

Cognitive structures concerned with processing information about gender have been called gender schemas (Bem, 1981a; Liben & Signorella 1980; Martin & Halverson, 1981). Money and Erhardt (1972) suggest that, in establishing gender identity, each child establishes two schemas. Money and Tucker (1975) explain that one schema tells you what to expect of your sex, including yourself. The other tells you what to expect of and how to react to, the opposite sex. Gender schematic individuals have a more readily available "map" for gender-related information. They may also be more prone than others to spontaneously invoke this heterogeneous network when processing information.

Bem (1981) proposed a model (Gender Schema Theory) for the schematic processing of gender-related information. She describes gender-schematic individuals, as having a "generalized readiness to encode information-including information about the self - in terms of the culture's definitions of masculinity and femininity" (p. 1193, 1982). Self schema theory (Markus, Crane, Bernstein & Siladi, 1982) proposes that individuals may be classified as feminine schematic, masculine schematic, schematic for both classes of information, or aschematic. Markus et al. (1982) found that individuals were better at remembering information that was "gender-appropriate" for their gender. Gender schematic individuals have a more readily available "map" for gender-related information.

Individuals differ in levels of gender schematicity. Signorella and Frieze, (1986, cited in Lips, 1988) found that most individuals are not strongly gender-schematic. That is, their masculinity or femininity is not central to their self concept. Thus, for some individuals, the gender schema does not play a large role in their self concept.

Schematic information processing, while efficient and necessary, can at times be a liability. Taylor and Crocker (1981) suggest that schematic processing results in selective attention, encoding, and retrieval. Thus, it will also lead to information loss. Individuals who employ the wrong schema may also: encode all the wrong data, define ambiguous or inconsistent information as being schema-consistent, use the wrong criteria in evaluating behavior, form incorrect expectations, and employ inappropriate behavioral scripts. While schematic processing is efficient, it may also contribute to inaccurate coding or loss of information.

The activation of an individual's gender schema may influence how she encodes information about herself and others as well as how she chooses to behave. McKenzie-Mohr and Zanna (1990) suggest that the use of a schema may result in behaviors which are in keeping with the schema. The activation of an inappropriate schema may contribute to discomfort or inappropriate behavior, as well as cognitive reliance on a less-than-appropriate schema.

It is possible to measure gender schemas through speed of processing schema relevant information. Bem (1981) notes that schematic individuals should be more likely to organize information in schema-related categories, and spontaneously make distinctions along these dimensions. The use of a schema results in shorter response latencies for information which is consistent with that schema (Taylor & Crocker, 1981). The speed of processing of gender related information can be used to measure gender schemas.

Research in this area has largely focused on the use of self report measures of attributes. Turcotte (1989) notes that the "most frequently employed attribute measures have been the Bem Sex Role Inventory (BSRI; Bem; 1974) and the Personal Attributes Questionnaire (PAQ; Spence et al.; 1975)". These measures consist of empirically chosen adjectives that are desirable for both sexes, but judged more typical of females or males. The PAQ also uses traits which are sex-specific; appropriate only for members of one sex. These scales, unlike the older unidimensional ones, make it possible to examine the gender schema. They do have the limitation of examining this only through self report along the dimension of traits or attributes.

Criticisms of these measures includes validity issues for the BSRI (Lips & Colwill, 1978), and sole reliance on positive items (Holahan & Spence, 1980; Spence et al., 1979) for these measures. Attempts to incorporate negative items have usually involved describing the absence of positive traits (Spence et

al., 1979). Turcotte (1989) notes that there have been few self-report scales available for assessing sex-role behavior. The Sex Role Behavior Scale (SRBS; Orlofsky, 1981) and the short-form SRBS (Orlofsky & O'Heron, 1987) are notable exceptions. They have not yet however, been demonstrated to effectively measure gender schematicity. Gender schematic individuals use this gender related dimension to evaluate and encode new information. Bem (1981a) says "highly gender schematic individuals do not differ from others in their ability to organize information on the basis of gender, but in their threshold for doing so spontaneously" (p.197). Thus, gender schematicity should not be limited to the dimension of traits. This schematicity should extend itself to other dimensions of information, used in evaluating self and others.

Gender schematicity as measured by traits may not extend to other dimensions of the self. The gender schema is most likely one of a number of schemas, all of which are available for the individual to rely upon. Graesser & Nakamura (1982) have suggested that separate schemas may represent many different domains of knowledge. Individuals may rely on different schemas, depending upon which one is applicable to the situation at hand.

Individuals who are gender schematic should process information using the gender schema. Previous research has focused on the trait dimension of information. Gender schematicity as measured using traits may not correlate with measures using other self-relevant items, and may be misleading

when used for categorization. The current study measured gender schematicity using both traits and careers.

Method

Subjects

Twenty female college students between the ages of 18 and 24 enrolled in introductory Psychology classes received extra credit for their participation in this study.

Apparatus

Stimulus words were presented using a computer program which was modified for this study. The traits presented were adjectives chosen or adapted from the BSRI and the Personal Attributes Questionnaire (PAQ,; Spence et al., 1975) M and F scales. The list of careers was drawn from the work of Croxton, et al., (1989), Garland and Smith (1981), Kalin, et al., (1980), Panek, et al., (1977), and O'Connor (1982). The lists of attributes and careers are presented in the Appendix.

Procedure

The gender schema was measured using a response time latency measure. The time between presentation and response reflects the availability of the gender schema. Individuals were asked to respond "yes" or "no" to a series of stimulus words. These words consisted of traits and careers, presented in random order. The subjects' task was to determine whether or not each trait was self descriptive, and whether or not each of the careers was appropriate for her to consider. They were to then respond accordingly, by depressing the appropriate key.

Results

Analysis of Variance revealed that response time was significantly shorter for feminine traits than for neutral traits, $F(2,18)= 11.47$, $p < 0.001$. Response time for masculine traits fell in the middle range. This was nearly reversed for careers, however. Response times for masculine careers was significantly shorter than for feminine careers, $F(2,18)= 4.62$, $p < 0.0164$. Response time for neutral careers fell in the middle range. Further analysis, using Duncan's Multiple range test revealed that feminine traits elicited shorter response times than masculine traits, and that masculine traits elicited significantly shorter response times than did neutral traits, Alpha = 0.05. Masculine careers elicited shorter response times than neutral careers, but no significant difference was found between neutral and feminine careers, Alpha = 0.05.

Discussion

Findings indicate that feminine traits are encoded most successfully, followed by masculine traits, which have received more elaborate encoding than neutral traits. Results further suggest that, for careers, masculine items are the most successfully encoded, and feminine items have received the least elaborate encoding.

Those individuals who participated in this study are apparently schematic for feminine traits, and for masculine careers. Thus it cannot be said that they are gender schematic for both areas of self relevant information. It may be that

careers are encoded along some dimension other than gender.

It may be inappropriate to obtain a global rating of gender schematicity, based only on measurements using traits. A global measure of gender schematicity would thus need to incorporate multiple dimensions, including, but not limited to, traits. Alternatively, it may be that gender schematicity as measured by traits may not extend to the dimension of careers. There may be other self-relevant information which is not encoded as part of the gender schema, and is processed using some other dimension. This is one area which future research may examine. Categorizing someone as gender schematic based on a measure which uses only traits may be misleading, unless it is specifically noted that only this aspect of self-relevant information has been measured.

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Appendix

Attributes:

Feminine:	Neutral:	Masculine:
affectionate	adaptable	active
childlike	conceited	adventurous
compassionate	conventicnal	aggressive
considerate	friendly	ambitious
creative	happy	analytical
emotional	efficient	assertive
feminine	jealous	athletic
flatterable	likeable	competitive
gentle	moody	dominant
gullible	reliable	forceful
kind	secretive	forward
neat	sincere	independent
shy	solemn	individualistic
sympathetic	theatrical	intellectual
tender	truthful	masculine
understanding	unpredictable	outgoing
warm	unsystematic	outspoken

Careers:

Feminine:	Neutral:	Masculine:
ballet dancer	T.V. newsperson	business executive
bank teller	art historian	accountant
beautician	clerk	dentist
cheerleader	dishwasher	engineer
childcare	factory worker	garbage collector
elementary school teacher	high school teacher	lawyer
flight attendant	historian	mayor
interior decorator	linguist	minister
librarian	medical technologist	optician
nurse	occupational therapist	physician
nutritionist	psychologist	physicist
secretary	radiology technologist	plumber
social worker	singer	police officer
telephone operator	writer	truck driver

Author notes

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